# TOWN OF GROTON PUBLIC WORKS DEPARTMENT REQUEST FOR QUALIFICATIONS/REQUEST FOR PROPOSALS

# ENVIRONMENTAL SERVICES FOR FLANDERS ROAD LANDFILL GAS FLARE MAINTENANCE AND LANDFILL GAS WELLFIELD MONITORING

#### **SECTION 1. INTRODUCTION**

The Town of Groton Public Works Department (the Department) is soliciting qualifications and proposals from experienced firms for conducting gas flare maintenance and landfill gas wellfield monitoring for the Flanders Road Closed Landfill, located at 685 Flanders Road, Groton. The contract service period is from August 1, 2016 to June 30, 2018.

This Request for Qualifications and Proposals (RFQ/RFP) provides specifications and requirements for prospective, qualified firms to prepare a response and submit a fee proposal with itemized cost estimates for services.

#### **SECTION 2. BACKGROUND:**

The Flanders Road Landfill began operations in 1956 as an open burn dump, and converted to sanitary landfill practices in 1962. The Department ceased accepting municipal solid waste (MSW) at the approximately 47 acre landfill site in 1993. Total waste in place was approximately 1.73 million megagrams (Mg). Capping of the approximately 10 acre bulky waste landfill located adjacent to the MSW landfill at the site was completed in 1998.

The Department installed a permanent enclosed flare, Perennial Energy, Inc. model number FL-72-26-E, in 2002, under the Connecticut Department of Energy & Environmental Protection (DEEP) Permit to Construct & Operate Landfill with Active Gas Collection & Treatment System (Permit No. 070-0244). The permit was modified January 2, 2013, due to declining concentrations of methane gas produced by the closed landfill.

#### **SECTION 3. FLARE OPERATIONS:**

The active gas collection and treatment system for the MSW landfill consists of a flexible membrane layer cap to capture emissions, thirty wells and a gas header pipe to collect the gas. In addition, the active gas collection system for the Bulky Waste landfill consists of a series of horizontal gas collection pipes tied into a common gas header that routes the gas to the MSW landfill gas header. The vacuum blower system of the MSW landfill routes all of the landfill gas to the enclosed flare. The heat from the enclosed flare breaks down the gas into its components. Propane may be used at startup of the enclosed flare.

The flare is being operated intermittently to allow for methane gas concentrations to build. The current intermittent operation schedule being implemented is approximately one-week of operation followed by approximately two-weeks of shutdown. Approximately two-weeks of

shutdown has been sufficient to allow enough gas build-up for approximately one-week of uninterrupted flare operation.

The Department records daily flare station operations and e-mails a checklist report to the Consultant on a weekly basis. The Department also conducts the following activities daily or regularly:

- Visually inspect the unit and report any leaks, breaks, or loose wires to Consultant;
- Test lamps by pushing the lamp test button; and
- Check the level of the condensate tank and pump as necessary.

If the flare operation is interrupted or ceases, a red strobe light flashes on the visual alarm panel. The Transfer Station Foreman checks the visual alarm panel daily when the Transfer Station is operating (Tuesday through Saturday). Typically, when the flare fails, the Department's Transfer Station Foreman will contact the Consultant for assistance in remotely troubleshooting the flare prior to the Consultant responding to the site. Issues are often successfully resolved over the telephone but in some cases a site visit is necessary.

## **SECTION 4. SCOPE OF SERVICES:**

#### Routine Scheduled Maintenance:

- Conduct a routine scheduled site visit every two months for a total of 12 visits in a twenty-three month period.
- Check the operation and maintenance of the blower/flare station during each visit
  - Damage and noticeable operational deficiencies will be noted
  - Gas quality measurements will be taken at the main gas header/and or the flare inlet using a Landtec GEM landfill gas analyzer or other appropriate landfill gas analyzer
  - Provide description of any major issues with the blower/flare station
  - Make changes to the flare operation schedule for optimal operation based on landfill gas production.
- Collect the following data during each site visit:
  - Landfill gas flow
  - Landfill gas composition (percentages of methane, carbon dioxide, oxygen and balance gases)
  - Main inlet header vacuum
  - Flare temperature
- Conduct scheduled maintenance in accordance with the Perennial Energy Operation & Maintenance Manual for a 13.5 MMBtu/h Enclosed Gas Flare Station for the Flanders Road Landfill (April 2002) Maintenance Schedule. Note: The Department will perform the daily checks indicated in Maintenance Schedule.
- Prepare a brief letter report monthly, detailing activities occurring each month including daily flare operations from the Department's weekly checklist report. The letter report

shall include temperature and flow readings of the flare and Criteria Pollutant Emissions Calculations: calculated flare stack emissions of particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), volatile organic compounds (VOCs) as non-methane organic compounds (NMOC), and carbon monoxide (CO) as compared to the allowable limits in the Flanders Road Landfill Modified Permit for Municipal Solid Waste Landfill Gas Collection and Control System dated January 2, 2013. The letter report shall also include monthly and annual volumetric landfill gas flow rate to the enclosed flare and annual emissions calculated over a rolling 12-month period for the Criteria Pollutant Emissions Calculations as required in the Modified Permit. Each letter shall be submitted to the Department within 30 days of the end of the previous month to meet the record keeping requirement in the Modified Permit.

### Non-Routine Scheduled Maintenance:

- Repair or maintenance work noted during routine visits will only be performed with the Department's prior approval on an as needed basis.
- Obtain price quotes from subcontractor(s) as necessary to perform any major repair or maintenance needed on the system such as repairing broken header valves and lateral lines, performing equipment overhauls, flame arrestor/deminster cleaning, system diagnostics and technical support.
- For estimating cost associated with this task, assume two events per year for a total of 4
  events and include an allowance for potential cost of repairs and subcontractor(s).

### Non-Routine Unscheduled Emergency Services:

- Perform non-routine unscheduled emergency services as needed. Events that require immediate response may include:
  - Odor complaints
  - Loss of flare ignition
  - Reduced flow of landfill gas
  - Surging vacuum/blower
- Perform only with the Department's prior approval
- Hire a subcontractor, as needed, for large repairs such as main header line breaks or similar issues that prevent gas from flowing to the flare/blower station.
- For estimating cost associated with this task, assume one event per year for a total of 2 visits and include an allowance for potential cost of repairs and subcontractor(s).

### Response to Alarms:

- Respond to alarms at the flare station within two days of Department notification.
- For estimating cost associated with this task, assume responding to four alarms per year for a total of 8 visits.

### Routine Landfill Gas Collection Control System Balancing:

- Check the operation and maintenance of the blower/flare station during each site visit of every two months as outlined under Routine Scheduled Maintenance.
- Conduct the following activities on a quarterly basis for 2 years for a total of 8 events:
  - Balance the wellfield such that an equal vacuum is being drawn on each of the wells;
  - Check the condition of all well heads, valves and sampling ports and tighten any connections as required;
  - Check the condition of the HDPE geo-membrane pipe boots at each well and header penetration. Tighten and reposition band clamps and apply a sealant as required.
  - Record vacuum, temperature, methane content, carbon dioxide content, and oxygen content at each well;
  - Observe operation of the flare station. Record vacuum, blower motor amperage, flare temperature, propane tank levels (approximate) and any apparent abnormalities. Inform Department immediately of any apparent problems with the flare operation. Note: Propane will be supplied by the Department.
  - Observe and note the condition of the cap surface in the area of the wells and provide the Department with recommendations concerning necessary maintenance activities for the cap.
- Prepare a letter report summarizing the activities performed during the wellfield balancing as well as any operation and maintenance activities performed during the quarter. Each letter shall be submitted to the Department within 30 days of the balancing event to meet the record keeping requirement in the Modified Permit.

#### **SECTION 5. REVIEW DOCUMENTS**

The following documents are available for review upon request:

- Sample Flare Operations Weekly Checklist Report from Department
- Monthly Operation and Emission Summary Letter November 2015
- Landfill Gas Wellfield Balancing 3<sup>rd</sup> Quarter 2015 Report Letter
- Flanders Road Landfill Modified Permit for Municipal Solid Waste Landfill Gas Collection and Control System dated January 2, 2013
- Perennial Energy Operation & Maintenance Manual for a 13.5 MMBtu/h Enclosed Gas Flare Station for the Flanders Road Landfill (April 2002).

#### **SECTION 6. QUALIFICATIONS**

Qualifying proposal shall include the following:

- Description of business organization and services provided.
- Description of landfill gas flare operation and maintenance and landfill gas well field monitoring experience, including references and names of personnel involved in the projects described.
- List key personnel (include resumes) to be assigned to this project.

Organizational chart showing management structure for this project.

#### **SECTION 7. DELIVERABLES**

All deliverables shall be submitted to the Director of Public Works, Gary J. Schneider, in both hardcopy and electronic/digital format (sent to <a href="mailto:kdoundoulakis@groton-ct.gov">kdoundoulakis@groton-ct.gov</a>). Deliverables include:

- Work Plan for Final Negotiated Scope of Services
- Monthly Operation and Emission Summary Letter (23 total), and
- Quarterly Landfill Gas Wellfield Balancing Report Letter (8 total).
- Work Plan for notification/approval of any additional services required beyond initial scope or cost estimate
- Invoice Submittals (hard copy only)
- Recommendations concerning necessary maintenance activities for the cap, landfill gas wellfield, or the landfill gas flare system and cost estimates

#### **SECTION 8. SCHEDULE AND COSTS**

The proposal shall include time and material cost estimates. Unit rates on which costs are based should be included. For general scheduling purposes, the contract service period is from August 1, 2016 to June 30, 2018.

#### **SECTION 9. RFQ/RFP INFORMATIONAL MEETING**

The Department will hold an informational meeting for prospective firms interested in responding to this RFQ/FRP on Tuesday, March 15, 2016 at 10:00 a.m. at the Flanders Road Landfill & Transfer Station located at 685 Flanders Road. For further information, contact Kristin Doundoulakis, Project Management Specialist, at the Town of Groton Public Works Department at (860) 448-4083, or by e-mail at kdoundoulakis@groton-ct.gov.

### **SECTION 10. DIRECTIONS FOR SUBMITTING PROPOSALS**

Respondents should submit an original and two (2) copies of their proposal to:

Gary J. Schneider Director of Public Works 134 Groton Long Point Road Groton, CT 06340

Proposals must be in writing and submitted in a sealed envelope clearly marked "Flanders Road Landfill Gas Flare Maintenance and Landfill Gas Wellfield Monitoring Services" no later than 4:00 P.M. prevailing time on Monday, March 28, 2016. No faxed or e-mailed proposals will be accepted. The Deadline for questions concerning this RFQ/RFP is Tuesday, March 22, 2016. The Public Works Department will not respond to questions received after this deadline.

Submittals must include the following contents:

- Letter of Transmittal (not to exceed one page): shall include the name, title, physical address, e-mail address, and telephone number of one or more individuals who can respond to requests for additional information as well as one or more individuals who are authorized to negotiate and execute a contract on the prospective Consultant's behalf. The letter must state that the proposal will remain valid for a period of 60 calendar days after the scheduled closing time to receive proposals. The letter must also state that Consultant carries adequate insurance to meet requirements of the Department as outlined in Section 12 and Attachment 1.
- Statement of Qualifications as outlined in Section 6
- Costs as outlined in Section 8

All proposals will be reviewed by a selection committee consisting of Department Staff. Not more than 3 firms will be selected for an interview.

Proposals will be ranked by the following criteria:

Percentage	Evaluation Criteria
25%	The firm's reputation for personal and professional integrity and competence; ability to work and comply with federal, state and local government agencies and persons in official oversight/compliance capacities, and familiarity and experience with the type of project/process.
25%	Professional and educational experience of key personnel and subcontractors to be assigned to the project.
25%	Approach to accomplish required services and ability to perform the required work within the project period.
25%	Cost of services provided.

### **SECTION 11. INTERVIEWS WITH SELECTED PROPOSERS**

Interviews will be scheduled with the selected firms(s) within 30 days after notification. Each firm will have 30 minutes to make a presentation to, and answer questions from, the selection committee. Focus should be on the approach to the operation and maintenance of landfill gas collection systems with declining gas production for optimal operation.

#### **SECTION 12. OTHER CONDITIONS**

The Department expressly reserves the right to reject any and all proposals and to waive formalities. The Department expressly reserves the right to require more definitive, alternative, or different proposal terms with one or more of the respondents who submit proposals.

A Certificate of Insurance, showing evidence of compliance with basic insurance requirements, must be provided at the time of negotiations. Refer to Attachment 1 for limits required by the Town of Groton.

Firm must be familiar and compliant with all Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and Connecticut Department of Energy & Environmental Protection Guidelines and regulations pertaining to the Scope of Services.

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### **ATTACHMENT 1**

### **INSURANCE REQUIREMENTS**

The Consultant, at his expense, will provide, carry and maintain throughout the term of this contract, adequate insurance as requested by the Town that will protect the Consultant, the Town of Groton, its officers, employees and volunteers from any and all claims for loss, damage, injury or death which may arise from the operation of this contract by the Consultant or anyone directly or indirectly employed by them. Policies shall be so written that the Public Works Department will be notified of cancellation at least thirty (30) days prior to the effective date of such cancellation. Certificates showing that all of the Consultant's operations are covered, and stating the coverage with the Town included as an additional insured, the limits of liability, expiration dates and exclusions, if any, will be filed with the Town of Groton Public Works Department before the term of the contract commences.

The Consultant shall provide the Town with certification by a properly qualified representative of the insurer that the Consultant's insurance complies with this section.

All of the insurance policies required shall have the legal company name of the insurer providing coverage, and contain the current rating of the insurer as provided by "Best's Insurance Reports", which must be A-, VII or above. This obligation applies to coverage written on an occurrence as well as a "claims-made" basis.

The Insurance Certificate must state whether coverages are written on an "occurrence" basis or a "claims-made" basis. All insurance must maintain that the Town is an "additional insured" for General Liability and Umbrella policies, and any other coverages as the Town may require for specific projects. Such insurance must be issued by insurance companies licensed to write such insurance in the State of Connecticut.

The Town of Groton, its officers, officials, employees and volunteers are to be covered as insureds as respects liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied, or used by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Town, its officers, officials, employees, or volunteers.

The Consultant's insurance coverage shall be primary insurance as respects the Town, its officials, employees and volunteers. Any insurance or self-insurance maintained by the Town, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

### SECTION A. WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY

Worker's Compensation must be provided in accordance with the Worker's Compensation Laws of Connecticut. Should the Consultant be involved in operations requiring coverage under special State or Federal Acts, such as Maritime or Railroad, the Consultant must provide evidence of this coverage. Should the Consultant be exempt from the Worker's Compensation Laws of the State of Connecticut, or any other State or Federal requirements, evidence of such exemption must be provided to the Town and a "Hold-Harmless" agreement provided in language satisfactory to the Town holding it harmless in the event of any claim for injury or damages. Consultants based out-of-state must provide evidence that their Worker's Compensation policy will cover injuries/illnesses sustained while working in the State of Connecticut.

The Consultant is responsible for ensuring that all of its subcontractors carry Worker's Compensation Insurance, as described above.

Employer's Liability must be provided in accordance with the following limits:

\$500,000 each - Bodily Injury \$500,000 disease - Policy Limit - Bodily Injury \$500,000 disease - Each Employee - Bodily Injury

### SECTION B. GENERAL LIABILITY

#### B.1 OCCURRENCE POLICY GUIDELINES

General Liability - Written under commercial or comprehensive form including the following: (Premises/Operation, Products/Completed Operations, Contractual, Independent Contractors, Broad Form Property Damage, and Personal Injury.)

<b>♦</b>	General Aggregate	\$2,000,000
•	Products/Completed Operations Aggregate	\$2,000,000
•	Personal & Adv Injury	\$1,000,000
•	Each Occurrence	\$1,000,000
•	Fire Damage (any one fire)	\$1,000,000
•	Medical Expense (any one person)	\$ 10,000

♦ Also "follow form" umbrella coverage over General Liability, Employer's Liability and Auto Liability in a minimum amount of \$1,000,000.

The Town requires that these aggregate limits be maintained by the Consultant as required. It is the responsibility of the Consultant or his representative to notify the Town if ever or whenever claims reduce the General Aggregate below \$2,000,000. If the aggregate limits include defense costs the Town should be so notified. It is the responsibility of the Consultant and his insuring agent to provide the Town with current certificates throughout the contract period keeping the required limits in full force and effect. The Town of Groton reserves the right to modify or change the requirements at any time if it is in the best interest of the Town to do so.

### B.2 CLAIMS-MADE COVERAGE GUIDELINES

General Liability - Written under commercial or comprehensive form including the following: (Premises/Operations, Products/Completed Operations, Contractual, Independent Contractors, Broad Form Property Damage, and Personal Injury).

The Town requires that the Certificate of Insurance include the retroactive date of the policy. Retroactive dates must be either before or coincident with the Contract's inception.

The Town requires prompt and immediate notice of the following:

- 1. Erosion of any aggregate limits,
- 2. Advance of any retroactive dates,
- 3. Cancellation or non-renewal. Prior 30 day notice.

The Town requires that any extended reporting period premium be paid by the named insured. The reporting of possible claims to the Town of Groton is necessary and the Town retains the right to require that the extended reporting period be invoked by the Consultant at his/her expense. The Town requires that if any excess coverage is secured to meet the requirements that the retroactive dates be concurrent with the primary policy and that the retro dates be either before or coincident with the inception of the Contract. If the retroactive date is moved, or if the policy is canceled or not renewed, the Consultant must invoke the tail coverage option, at no expense to the Town but rather at the expense of the Consultant, in order to adequately assure that the policy meets the above requirements.

Liability Limits: Same as those under Section B.1 "Occurrence Policy Guidelines"

#### B.3 OTHER COVERAGE

The coverages below apply only if there is an amount stated, otherwise coverage is not being requested at this time.

Underground Explosion and Collapse Hazard	\$
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Blasting/Explosion	\$
Pollution Legal Liability	\$

The above coverages are on a combined single limit basis for bodily injury and property damage, on an occurrence form.

## SECTION C. AUTOMOBILE LIABILITY

- C. Automobile Liability coverage for commercial or comprehensive automobile liability (vehicular), covering any auto, all owned autos (private passenger), all owned autos (other than private passenger), hired autos and non-owned autos.
  - ◆ Combined Single Limit Bodily Injury/Prop Damage \$1,000,000
  - Also "follow form" umbrella coverage over General Liability, Employer's Liability and Auto Liability in a minimum amount of \$1,000,000.

Insurance under B & C above must provide for a 30-day notice to the Town of Groton of cancellation, non-renewal, termination, or any restrictive amendment.

#### SECTION D. PROFESSIONAL LIABILITY

D. The Consultant must have professional errors and omissions coverage with a liability limit of \$2,000,000 aggregate. The professional firm must provide proof that these limits are available under the policy depicted in the Certificate of Insurance. The professional is responsible for the payment of any deductible associated with any claim made against this policy. The firm must state whether the coverage is occurrence form or claims made coverage. If the coverage is claims made it is the Engineer's responsibility to assure that the coverage remains in force not only concurrently with the project dates but as per the terms of the contract specifications.

The Certificates of insurance must be received by the Public Works Department prior to the signing of any contract documents.